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**REPORT
OF THE
MEDICAL OFFICER
OF HEALTH
OF THE
URBAN DISTRICT COUNCIL
OF SHILDON**



**FOR THE YEAR
1961**



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THE URBAN DISTRICT COUNCIL OF SHILDON

1961

Chairman of the Council: Councillor J. HOWE, J.P.

Vice-Chairman: Councillor K. NEWBY

Chairman of the Health Committee: Councillor W. NUNN

Chairman of the Housing Committee: Councillor W. EDWARDS

Councillors:

MRS. M. ASTON	MRS. M. DODDS	F. PICKERING
E. BARLOW	W. FRANCIS	A. J. RICHARDSON
T. BENNETT	M. S. GIBSON	F. J. ROBSON
C. J. CAMPBELL	G. W. KIRTLEY	F. THORNTON
P. R. DOUTHWAITE	F. H. MANNERS	B. WALKER, J.P., C.C.
	R. MOYLE	

Public Health Officers of the Local Authority

Medical Officer of Health (part-time):

J. M. HEGARTY, M.B., B.CH., B.A.O., D.P.H.

Public Health Inspector:

W. K. HILL, M.B.E., M.P.H.I.A., C.I.Hsg.

Additional Public Health Inspector:

K. ROBSON

Clerical Assistant:

S. THOMPSON

Annual Report of the Medical Officer of Health

YEAR ENDING 31st DECEMBER, 1961

Mr. Chairman, Ladies and Gentlemen,

I have pleasure in submitting to you the Annual Report on the Health and Sanitary circumstances of your District for 1961.

The Vital Statistics compare very favourably with the previous year and with those for the Country as a whole.

The Birth Rate is much higher and the Death Rate about the same as in 1960. There were 160 Deaths—of these, well over half reached the “ allotted span ” of three score years and ten; 56 died between 70 and 80, 34 between 80 and 90 years of age.

The Still Birth rate is very much lower and the Infant Mortality Rate is less than half of what it was last year. There were 6 Deaths in comparison with 10 in 1960. Of these 6 deaths, 4 died under one week and 2 under one month. Again, of these 6 deaths, 3 died from prematurity, 1 from Congenital Heart Disease, 1 from Infection and 1 from Aortic Thrombosis. These figures give an Infant Mortality and Neo-natal Mortality rate of 26.88 and an early neo-natal rate of 17.94.

Cases of Cancer of the lung have again decreased. There were 10 in 1959, 7 in 1960 and this year, 6. The overall number of cases of cancer of all parts of the body has decreased by over one third. This is a different pattern from that of England and Wales where Cancer and particularly that of the lung or bronchus, is increasing. The connection between cigarette smoking and Lung Cancer is still considered to hold good and propaganda to this effect is at last beginning to have some effect on the public. Fewer adult males are smoking.

Notifications of Pulmonary Tuberculosis were 5—2 less than last year and 12 less than 1959. This is the same number as 1958, which then was our lowest ever figure. No Non-pulmonary case was notified.

The number of X-ray films taken during the Mass Radiography Unit's visit to the district was 1,744—over 3 times the number last year. This resulted in 5 cases being referred to the Chest Clinic, but only one was notified as Tuberculosis.

Vaccination against Tuberculosis, which started last year, was carried out in the same schools—the response being quite good. Details are given later in the report. I would again like to acknowledge the excellent co-operation given by the Head Teachers of all the schools visited.

Not one case of Scarlet Fever, Poliomyelitis or Diphtheria was notified. There were only 19 cases of Whooping Cough and Measles notifications were a few less than last year.

During the year, Triple Vaccine was passed by the Minister of Health for use in the County Clinics and also supplied to the General Practitioners. This vaccine combines Whooping Cough, Diphtheria and Tetanus so that the child receives 3 pricks to protect against the three diseases.

During the year, a great deal of consideration has been given to providing accommodation for the aged in the area. It is hoped to provide as soon as possible accommodation for old people with the services of a warden and recreational amenities. Attempts have been made to locate these units in the centre of the town—near to shopping and other facilities. It is also proposed to continue the clearance of slum areas to re-develop the town—these houses to cater for the general need and slum clearance.

It is pleasing to note the use of Standard Grants which have been given for improvement of properties thereby raising the general housing standard of the Urban Area. It is hoped that this will continue.

It is also pleasing to note that the Council continues to give housing accommodation in cases of serious medical need and to those who are rendered homeless, through no fault of their own.

During the year the Council became one of the first authorities to build and offer houses for sale. This was to encourage owner occupiers to purchase houses and to stimulate private building. Ten three bedoomed houses were built and sold at a cost of £1,850 0s. 0d. each freehold, plus £120 0s. 0d. for a brick garage if required. Mortgages were arranged through the Council which operates the Small Dwellings Acquisition Scheme for house purchase, and all these houses were sold. It is hoped that this will be the forerunner of many similar houses built by the Council for private purchase.

VITAL STATISTICS

POPULATION

The Registrar General's figures for the Area at Mid 1961, show the resident population as 14,070, this being an increase of 150 over the previous year.

Live Births	Male	Female	
Number	136	125	= 261
Rate per 1,000 population	17.99 Standard.		

Illegitimate Live Births (per cent. of total live births): 4.598%

Male	Female	
6	6	= 12

Still Births:

	Male	Female	
Number	4	3	= 7
Rate per 1,000 total live and still births:	25.34		

Total Live and Still Births:

	Male	Female	Total
Live	136	125	261
Still Births	4	3	7

Infants Deaths (deaths under one year):

3	3	6
---	---	---

Infant Mortality Rates:

Total infant deaths per 1,000 total live births: 26.88

Legitimate infants deaths per 1,000 legitimate live births:
28.19

Illegitimate infant deaths per 1,000 illegitimate live births:
Nil

Neo-Natal Mortality Rate (deaths under four weeks per 1,000 total live births): 26.88

Early Neo-Natal Mortality Rate (deaths under one week per 1,000 total live births): 17.94

Perinatal Mortality Rate (still births and deaths under one week combined per 1,000 total live and still births): 48.03

Maternal Mortality (including abortion):

Number of Deaths: Nil

Rate per 1,000 total live and still births: Nil

Death Rate:

Shildon Area 13.3 per 1,000 population

England and Wales ... 12.0 „ „

Deaths in Shildon Area, as per Returns to the Medical Officer of Health 78

Deaths of Shildon Residents outside the area ... 82

Infantile Mortality Rate:

The number of Deaths of children under the age of one year is 6, representing an Infantile Mortality Rate per 1,000 Live Births of 26.88. Of these 6, only 1 occurred in Shildon.

The Infantile Mortality figure for England and Wales is 21.4 per 1,000 Live Births.

SUMMARY OF STATISTICS

	Death Rate per 1,000 pop'n	Inf. Mort. Rate per 1,000 Live Births	Still Birth Rate per 1,000 Live and Still Births	Birth Rate per 1,000 pop'n	Live and Still Birth Rate per 1,000 popula- tion
Country Average (England & Wales)...	12.0	21.4			18.7
Shildon 	13.31	26.88	25.34	17.99	

Births in excess of Deaths:

1950	...	...	56	1956	...	...	71
1951	...	...	52	1957	...	...	50
1952	...	...	58	1958	...	...	98
1953	...	...	64	1959	...	...	74
1954	...	...	61	1960	...	...	34
1955	...	...	27	1961	...	...	101

Population Changes:

1955	...	...	...	...	14,160
1956	...	...	...	...	14,050
1957	...	...	...	...	13,960
1958	...	...	...	...	13,920
1959	...	...	...	...	13,910
1960	...	...	...	...	13,920
1961	...	...	...	...	14,070

Age Groups of Deaths in Shildon:

Under 1 yr.	1-5	5-15	15-25	25-45	45-60	60-70	70-80	Over 80	Total
1	—	—	—	1	10	13	33	20	78

Age Groups of Deaths Outside the Area:

Under 1 yr.	1-5	5-15	15-25	25-45	45-60	60-70	70-80	Over 80	Total
5	—	—	—	8	10	22	23	14	82

INFECTIOUS DISEASES

Table of Cases as notified in the Whole District, set out in age groups (Civilians only)

Infectious Disease	Under 1 yr.	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-35	35-45	45-61	61 & over	At all ages
Scarlet Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Pyrexia ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles ...	1	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas ...	8	35	19	20	37	16	1	—	—	—	—	—	—
Poliomyelitis ...	—	—	—	—	—	—	—	—	—	—	—	—	—
TUBERCULOSIS:													
1. MALES:													
(a) Pulmonary ...	—	—	—	—	—	—	—	—	—	—	—	—	—
(b) Non Pulmonary ...	—	—	—	—	—	—	—	—	—	—	—	—	—
2. FEMALES:													
(a) Pulmonary ...	—	—	—	—	—	—	—	—	—	—	—	—	—
(b) Non Pulmonary ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Paratyphoid Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Meningitis ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Food Poisoning ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Encephalitis ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery ...	1	4	—	—	3	6	2	1	3	1	2	—	23
	10	39	19	22	40	29	4	1	8	6	9	13	200

TUBERCULOSIS

The following cases remained on the Register at the end of the year:

	Pulmonary	Non-Pulmonary	Total
Males ...	66	7	73
Females... -	52	15	67
	<hr/>	<hr/>	<hr/>
	118	22	140
	<hr/>	<hr/>	<hr/>

This shows an increase of 5 Pulmonary Cases over the previous year.

The number of known Tuberculosis Cases in the District represents .98% of the population, an increase of .02% over the previous year.

There were 5 Cases notified during the year in the following age groups:

	Pulmonary Male	Pulmonary Female	Non-Pulmonary	
			Male	Female
Under 1 year	—	—	—	—
1-5 years	—	—	—	—
5-10 "	—	—	—	—
10-15 "	—	—	—	—
15-20 "	—	—	—	—
20-25 "	—	2	—	—
25-30 "	—	—	—	—
30-35 "	—	—	—	—
35-40 "	—	—	—	—
40-45 "	—	—	—	—
45-50 "	—	—	—	—
50-55 "	2	—	—	—
55-60 "	—	—	—	—
60-65 "	1	—	—	—
	3	2	—	—

VACCINATION RETURNS FOR THE YEAR 1961

With the introduction of the National Health Act (5th July, 1948), this became the responsibility of the Durham County Council.

During the year the following vaccinations were carried out:

Poliomyelitis	1st Injection	2nd Injection	3rd Injection	4th Injection
	3	3	119	318

		Primary	Booster
Diphtheria	...	191	65
Whooping Cough	...	182	—
Smallpox	...	120	10 (Re-vaccinations)

B.C.G. Vaccinations:

No. of Forms distributed	No. of Consents	No.	Heaf Tests	No.	No. vaccinated with B.C.G.
477	294	244	28	202	199

Home Help Service:

Home Helps were supplied to 87 households in the area during the year.

PARTICULARS OF DISTRICT

Area (in acres) including Eldon, Old Eldon, Midbridge and Brusselton	...	...	...	...	4,828
No. of inhabited houses in the District of which 48 were constructed during the year, 27 Condemned/Closed and Demolition Orders served under Section 17 of the Housing Act, 1957, 11 and 16 of the Housing Act, 1936. The tenants of such houses demolished being re-housed by this Council	...	...	...	...	4,666
Sum represented by a Penny Rate	...	...	...	...	£392
Rateable Value	...	...	...	...	£104,985

SANITARY CIRCUMSTANCES OF THE AREA

Water Supply:

The area has a piped supply of water provided by the Durham County Water Board.

An ample supply has been maintained throughout the year, the supply is of good quality and regular bacteriological and chemical tests are carried out by the Durham County Water Board.

Refuse Collection:

Domestic, Shop and Trade Refuse is collected throughout the area by regular weekly collection provided by the Council. The disposal of the refuse is done by 90% controlled tipping at Sunnydale Tip in a most satisfactory manner. The remainder of the refuse has either been deposited at the uncontrolled Tip at Adelaide Bank or at Old Eldon. It is anticipated that the Adelaide Bank Tip will be discontinued at the expiration of 1962 and the refuse deposited there will be transferred to Sunnydale Tip. Every effort is being made to fill in the other uncontrolled tip at Old Eldon so that the whole of the refuse for the area can be disposed of on the Controlled Tip at Sunnydale.

During the last 12 months, it has become very noticeable that the amount of paper and cardboard in domestic refuse has increased in relation to ash, etc., to a very considerable extent and this, of course, leads to the problem of conveying such bulky quantities on the present vehicles. It is proposed to carry out trial tests during the year 1962, with rear loading bulk refuse vehicles with a view to introducing these for refuse collection in the future.

Collection of Salvage:

This service is continued along with the normal collection of household refuse in the area and, during the year, has provided a substantial contribution to the General Rate Fund.

Description	Tons	Cwts.	£	s.	d.
Waste Paper (all types)	...	25 10	201	16	0
Scrap Metal	...	15 2	172	16	0

SANITARY CIRCUMSTANCES OF THE AREA—

continued

Householders continue to assist by placing clean, dry paper in separate bundles by the Ashbin on the normal day of collection.

Shopkeepers and owners of other trade premises are again asked to either tie their waste cardboard and papers into bundles or compress them into packages in boxes for collection purposes. The practice of storing large quantities of cardboard and paper in small rooms and outbuildings leads to great difficulty in the collection of these by the Council vehicles. The Council have a contract with the Thames Board Mills Ltd., Purfleet, Essex, for the purchase of the waste paper baled and rags and metals collected are sold to local scrap merchants.

Drains and Sewerage:

The drains and sewers continue to work in a satisfactory manner and the Sewage Works gives excellent results. All new drains to buildings are subject to test before being passed.

Rodent Control:

Private businesses and dwelling houses were treated as and where necessary—a charge being made to properties other than dwelling house property. A Full-time Rodent Operator is employed by the Council for the purpose of carrying out this work.

The public continue to report promptly to the Council Offices any infestation of rats and mice being found on their property.

No. of premises visited
644

No. of baits laid
3,647

The number of visits made during the year on Rat Infested premises during which treatment was carried out being ... 2,361

**Summary of Notices and work done in the Public Health Inspectors
Department during the Year ended 1961.**

Houses erected in area:

	With State Assistance	Unaided	Total
(a) By Local Authority ...	46	—	46
(b) By any other Local Authority ...	—	—	—
(c) By private persons ...	—	2	2
	46	2	48

2. Closing and Demolition of Houses.

(a) Formal Action:

	No.
(i) No. of houses demolished during the year as a result of Clearance Schemes or other formal action —	
(ii) No. of houses Closed but not demolished as a result of formal action 18	18
(iii) No. of houses in Clearance Areas and individual unfit houses, demolition of which temporarily postponed 28	28
(iv) No. of houses in use as temporary accommodation 2	2

(b) Informal Action:

(i) No. of houses permanently discontinued as dwellings as a result of informal action and not included above —	
---	--

3. Reconditioning and Repair.

No. of houses made fit during year by procedure under Housing Acts (excluding temporary accommodation) or Public Health Acts:—

	No.
(a) As a result of informal action 90	90
(b) By owners as a result of statutory notice ... 1	1
(c) By Local Authority in default of owners ... —	—

General Summary.

	No. of Inspections	No. of Informal Notices served	No. of Statutory Notices served	Defects Remedied after Notice	Legal Proceedings and General Remarks
Housing:					
Public Health and Housing Acts ...	... 1,971	Repairs carried out to Council Houses through this department by Direct Labour.	18 341	9	Inspections for rehousing and Clearance Area.
Overcrowding —	—	—	—	
Sanitary Conveniences:					
Insufficient Defective ...	... 158	—	—	—	
Drainage ...	— 145	—	—	—	
Water supply	— 64	—	—	—	
Food Premises	— 32	—	—	—	
Shops Act ...	— 1,500	—	—	—	
Dairies ...	— —	—	—	—	
Slaughter Houses:					
Public ...	— 116	—	—	—	
Private ...	— 2	—	—	—	
Tents, Vans, etc. ...	— 1	—	—	—	
Offensive Trades ...	— 51	—	—	—	
Factories and Workplaces ...	— 8	—	—	—	
Keeping of Animals ...	— 4	—	—	—	
Insanitary Ashpits and Receptacles	— 4	—	—	—	
Offensive Accumulations ...	— 1	—	—	—	
Smoke Nuisances ...	— 2	—	—	—	
Prevention of Damage by Pests Act, 1949	— 1	—	—	—	
Privy Conversion ...	— 1	—	—	—	
Standard Grants ...	— 2	—	—	—	
Dysentery Investigation ...	— 1	—	—	—	
	4,728	92	6	50	2 completed.

SANITARY CIRCUMSTANCES OF THE AREA— *continued*

4.

(a) Water, Food and Drugs:

	No.
Samples of water taken for Analysis (water samples are taken by the Durham County Water Board)	27
Seizures of unwholesome food (voluntarily surrendered)	47
Samples of Food and Drugs taken for Analysis or found to be adulterated	—
No isolated samples were taken by this Council as this is the function of the Durham County Council	—
No cases of food adulteration were reported to this Council.	—

(b) Precautions against Infectious Diseases:

Lots of Infectious Bedding Stoved or Destroyed	3
Houses disinfected after Infectious Disease ...	—

(c) General:

Number of new houses Erected during the year	48
Number of such houses Occupied during the year	48
Total number of Water Closets in the District ...	4,758
Total number of Ash-pit privies in District ...	179

PRIVY CONVERSIONS

The Scheme introduced by this Council in 1957, for a Grant of £10 0s. 0d. per privy, continues to be operated, mainly in areas Eldon, Brusselton and Middridge.

The number of Conversions completed during the year ended 31st December, 1961, being 2.

It is pleasing to note that the number of privies in the area has reduced from 199 to 179 but even this figure is far too large in the interests of health. It is therefore proposed to carry out a Privy Conversion Scheme during the year 1962, on those houses affected at Eldon thereby reducing the number of such privies by 100 and it hoped that other owners will take advantage of the Council's Scheme of allowing £10 0s. 0d. per conversion to convert privies in properties outside the Eldon Ward or by use of the Standard Grant Scheme to convert such premises.

SANITARY CIRCUMSTANCES OF THE AREA— *continued*

MILK RETAILERS

There are six Retail Purveyors in the District who are supplying either Pasteurised or Tuberculin Tested (Pasteurised) Milk.

Regular samples are taken for testing by the Durham County Council Weights and Measures Department who have reported satisfactory results during the year.

SLAUGHTER HOUSES

Under the provisions of the Slaughterhouses Act, 1958, there are now only 4 slaughterhouses operating in the area, 2 of which only slaughter pigs and sheep. The 4 slaughterhouses concerned are each attached to the retail shop for which they are used, and conform to the standards laid down under the provisions of the above Act, and have been duly licensed thereunder. All animals slaughtered have been subject to inspection which has amounted to 100%. A high standard of cleanliness has been maintained in the slaughterhouses throughout the period.

The 4 slaughterhouses concerned are as follows:—

- (1) J. N. Percival ... 25, Church Street, Shildon.
- (2) J. Studham ... 49, Church Street, Shildon.
- (3) F. S. Hodgson ... 13, St. John's Road, Shildon.
- (4) E. Smith (Jnr.) ... 9, Redworth Road, Shildon.

The total number of animals inspected during the year being:—

	Animals Slaughtered
Cattle ...	222
Sheep ...	578
Pigs ...	271

Of the meat condemned there was one carcase found to be affected with *Cystocercus Bovis* which was dealt with by deep freeze.

HOUSING

(a) The Council's Pre- and Post-War Housing Programmes are summarised as follows:—

	No. Erected
1919 Act 124	
1930-1935 Act:	
North Eastern Housing Association, Newcastle.	
(Let by this Council) 100	
Post-War Temporary Housing 43	
Post-War Permanent Housing 790	
Post-War Aged Persons Bungalows 130	
Post-War Flats 58	
(28 available for Old Aged Persons)	

(b) The 5 year Clearance Plan, as compiled in 1955, progressed satisfactorily and below is a statement of the position at 31st December, 1961, with regard to this. Work has now been commenced on the 2nd phase with a view to Clearance 1961-1966.

Location	No. of houses	Cleared at 31.12.61	Still outstanding at 31.12.61
Summersons Yard 4	4	—	
*Auckland Terrace, Shildon (Nos. 11-17) 5	—	5	
*Auckland Terrace, Shildon (Nos. 97-153) 13	—	13	
*Dalton Street 7	—	7	
*Marley Street 1	—	1	
*Garbutt Street 3	—	3	
North Side, Middridge 5	—	5	
South Side, Middridge 6	—	6	

Note: Areas marked thus * above, now in Clearance Area and awaiting approval.

HOUSING—*continued*

A start has been made on the Dalton Street/Marley Street/Garbutt Street area and it is hoped to have this completed during the year 1962 and the area cleared in 1963, to allow development to start there. The number of houses for Clearance involved being approximately 30.

The total number of houses already included in Clearance and Demolition Orders which have been dealt with in the Post-War years is 478.

(c) Re-Housing:

During the year ended 31st December, 1961, 61 houses were let to the following groups, in accordance with the Council's allocation of houses Scheme:

								No.
Points	...	...	...	...	...	...	...	25
Individual Unfit Houses	...	...	...	...	...	...	...	21
Medical Cases	...	...	...	...	...	...	...	4
Key Workers	...	...	...	...	...	...	...	5
Eviction Cases	...	...	...	...	...	...	...	6
								61

(d) The number of houses built by the Council during the year was 46, situated on the Jubilee Field Site. Every effort is being made to provide accommodation for the aged in the form of 1 or 2 bedroom type bungalows as the number of applicants for this accommodation increases each year.

The allocation of Council houses is made on the following grounds:

- (1) Clearance.
- (2) Points.

together with serious medical cases and special provisions being made to allocate bungalows to old people within the town itself.

Persons requiring housing accommodation, should complete the Housing Application Form, obtainable at the Council Offices, for inclusion on the following year's Housing List.

The number of applicants remaining on the Housing and Bungalow List at 31st December, 1961, were as follows:—

Applications	Type of dwelling required
155	Two bedroom house.
49	Three bedroom house.
177	Bungalows.

It is anticipated that the Prefabricated Houses on Elm Drive Estate, 43 in number, will no longer be used for dwellings after 1962/1963, due to their structural decline and, with the clearance of this site, further development can be carried out in this area.

Part I—Applications for Certificates of Disrepair:

(a) No. of applications for Certificates	... ...	—
(b) No. of decisions not to issue Certificates	... ...	—
(c) No. of decisions to issue Certificates—		
(i) in respect of some but not all defects	... ...	—
(ii) in respect of all defects	... ...	—
(d) No. of undertakings given by Landlords under para. 5 of the 1st Schedule	... ...	—
(e) No. of undertakings refused by Local Authority under proviso to para. 5 of the 1st Schedule	... ...	—
(f) No. of Certificates issued	... ...	—

Part II—Applications for Cancellation of Certificates:

(g) Applications by Landlords to Local Authority for cancellation of Certificates	... ...	...	—
(h) Objections by Tenants to cancellation of Certificates	... ...	...	—
(i) Decisions by Local Authority to cancel in spite of Tenant's objections	... ...	...	—
(j) Certificates cancelled by Local Authority	... ...	...	—

(f) House Purchase and Housing Act, 1959 (Standard Grants).

The following is a summary of applications received under the provisions of the above Act, from January, 1961—31st December, 1961:—

(i) No. of applications received	... ...	...	63
(ii) No. of applications approved	... ...	...	52
(iii) No. of applications rejected	... ...	...	10
(iv) No. of improvements completed	... ...	...	54

WATER SUPPLY

- (a) The water supply to the area has been satisfactory in quality and in quantity.
- (b) 27 bacteriological samples were taken in the Shildon area during 1961, all of which were satisfactory. The water supplied to Shildon consists of that supplied from Mainsforth Supply Works or Tunstall Filtration Works.
- (c) The water supplied to Shildon is not plumbo-solvent.
- (d) Chlorination is carried out after all mains repairs and bacteriological tests are made until a satisfactory result is obtained.
- (e) The number of dwelling houses supplied is 4,482. In addition, 168 houses and shops combined, 94 lock-up premises and 140 trade premises are supplied. All the supplies are direct to the property.

TYPICAL ANALYSIS OF MAINSFORTH TREATED WATER

PHYSICAL CHARACTERISTICS:

Appearance	...	Colourless, clear and bright
pH Value	...	7.8
Colour in Hazen Units	...	Less than 5
Conductivity m.u. at 18° C.	...	1,155
Odour	Nil	Taste
	...	Slightly saline
Turbidity A.P.H.A. Units	...	Nil

CHEMICAL EXAMINATION:

Parts per
Million

Total Solids dried at 180° C.	...	...	...	780
Suspended solids	...	...	...	Nil
Free Acidity as CO ₂	...	...	...	Nil
Free Alkalinity as CO ₂	...	...	...	Nil
Total Alkalinity as CaCO ₃	...	...	...	175

					Parts per Million
Hardness as CaCO_3—	...	...	...	...
Carbonate Hardness	...	...	...	...	110
Non-Carbonate Hardness	...	...	...	...	—
Total Hardness	...	...	...	...	110
Chlorides as Cl	...	...	...	...	71
Sulphates as SO_4	...	...	...	...	320
Nitrates as N_2	...	...	...	...	0.1
Nitrites as N_2	...	...	...	...	Nil
Free and Saline Ammonia as NH_3	...	...	...	...	0.08
Albuminoid Ammonia as NH_3	...	...	...	...	0.02
Oxygen Absorbed Test at 27° C . (4 hours)	...	...	...	...	Less than 0.05
Soluble Silica as SiO_2	...	...	...	...	5.0
Aluminium as Al	...	...	...	...	Less than 0.1
Copper as Cu	...	...	...	...	Less than 0.1
Iron as Fe...	...	...	...	...	Less than 0.1
Lead as Pb	...	...	...	...	Less than 0.1
Manganese as Mn	...	...	...	...	Less than 0.1

The supply is chlorinated to give a residual not exceeding 0.3 p.p.m. leaving the plant. The chlorine is mostly present as chloramine.

Appearance ... Very slightly coloured, almost clear with no obvious sediment.

TYPICAL ANALYSIS OF TUNSTALL TREATED WATER

PHYSICAL CHARACTERISTICS

pH Value	...	...	...	...	...	8.3
Colour in Hazen Units	...	...	...	...	...	17.0
Conductivity m.u. at 18° C}.	...	...	...	...	...	130.0
Turbidity A.P.H.A. Units	...	...	...	...	...	1.0

CHEMICAL EXAMINATION:

Parts per
Million

Total Solids dried at 180° C}.	...	...	...	...	100.0
Suspended Solids dried at 180° C}.	...	...	...	...	Nil
Free Acidity as CO_2	...	...	...	...	1.0
Free Alkalinity as CaCO_3	...	...	...	...	Nil
Total Alkalinity as CaCO_3	...	...	...	...	34.0

					Parts per Million
Hardness as CaCO ₃ —					
Carbonate Hardness	...	...	...	...	34.0
Non-Carbonate Hardness	...	...	...	...	20.0
Total Hardness	...	...	...	...	54.0
Chlorides as Cl	...	...	...	...	9.0
Sulphates as SO ₄	...	...	...	...	29.0
Nitrates as N ₂	...	...	...	...	0.2
Nitrites as N ₂	...	...	...	...	Trace
Free and Saline Ammonia as NH ₃	...	...	...	...	0.1
Albuminoid Ammonia as NH ₃	...	...	...	...	0.1
Oxygen Absorbed test at 27° C. (4 hours)	...	...	...	...	1.0
Soluble Silica as SiO ₂	...	...	...	...	2.0
Aluminium as Al	...	...	...	...	0.5 Max.
Copper as Cu	...	...	...	...	Nil
Fluorine as F	...	...	...	...	0.1
Iron as Fe	...	...	...	...	0.1
Lead as Pb	...	...	...	...	Nil
Manganese as Mn	...	...	...	...	0.1

The residual chlorine content should not exceed 0.5 p.p.m. and is usually present as chloramine.

FACTORIES ACT, 1937

Regular visits were paid to the factories in the area and, in general, conditions were found to be good.

I remain,

Mr. Chairman, Ladies and Gentlemen,
Your obedient Servant,

J. M. HEGARTY,

*Medical Officer of Health,
Shildon Urban District Council.*

SHAW & SONS LTD., FETTER LANE, LONDON, E.C.4.

